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*sent*

The Honorable Arthur S. Flemming  
The Director, Office of Defense Mobilization  
Executive Office Building  
Washington, D. C.

Dear Mr. Flemming:

In answer to your query at the 15 November NSC Meeting regarding Soviet Bloc procurement and use of titanium, I have had my experts draft the brief attached paper. You will note that our information on this subject is somewhat fragmentary. As we acquire additional significant data, I shall keep you informed.

Sincerely,

Allen W. Dulles  
Director

Attachment

25X1 ODD/I/ [ ] mm  
22 November 55

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Soviet Bloc Procurement and Use of Titanium

The titanium metal industry in the USSR in 1955 may have reached either the advanced pilot-plant stage of development or small-scale commercial production. Under these conditions the 1955 output of titanium metal sponge probably would not exceed 600 metric tons and might be as little as 60 metric tons. Titanium research and development activity in other Bloc countries is insignificant.

To date, actual Bloc imports of titanium metal have been negligible. We have noted sporadic attempts by the Bloc to purchase titanium sponge metal, but the available supply on the world market has been extremely limited. The Bloc has also been deterred from acquiring titanium in Free World markets by its inability to overcome the difficult technological problem of producing a usable end-product from titanium metal sponge.

Evidence of the use of titanium metal in Bloc aircraft or in other applications on more than an experimental basis is completely lacking, except for the use of titanium as a stabilizer in alloy steels. It has long been standard practice to introduce titanium in the metal bath as ferro-titanium.

With respect to the purely theoretical aspects of titanium research and development, Soviet technical publications suggest the possibility of significant advances in titanium chemistry, physics, and electrometallurgy. There is no evidence, however, that these activities are as far advanced as in the U. S. If this degree of progress had occurred, it is highly probable that it would have been reflected in the Soviet literature or in intelligence raw material. In any event, as has been shown in the U. S., the key to titanium metal utilization is production engineering.

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[REDACTED] Soviet engineers were reported to have stated that the output of titanium metal in the USSR for 1955 was at least 5,000 metric tons. This production estimate cannot be accepted at the present time, because there is no physical evidence of Soviet utilization of titanium metal, and because there is no confirmatory information.

22 November 1955

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16 November 1955

**MEMORANDUM FOR:** Assistant Director/Research and Reports  
Assistant Director/Scientific Intelligence

**SUBJECT** : Request For Data on Soviet Procurement  
and Use of Titanium

1. At the NSC meeting on 15 November, the Director was asked by Mr. Flemming of the Office of Defense Mobilization about the production, import and uses of titanium in the Soviet bloc, and primarily in the Soviet Union. The question arose as a result of an item in the Director's intelligence briefing of the Council that the Hungarian government was negotiating to build an arms factory in India in exchange for titanium ore and other products.

2. The Director has asked that I prepare a reply to Mr. Flemming for his signature. Consequently, I would appreciate receiving, at your earliest convenience, a concise coordinated report summarizing available information on this subject.

  
Assistant to DD/I(Intelligence)

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